

**Commonwealth of Massachusetts**  
**Executive Office of Environmental Affairs ■ MEPA Office**

**ENF Environmental Notification Form**

*For Office Use Only*  
*Executive Office of Environmental Affairs*

EOEA No.: *14454*  
 MEPA Analyst: *Aisling Eglinton*  
 Phone: 617-626-*1024*

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: Populatic Street Well (No.12) - Site I-86		
Street: Populatic Street		
Municipality: Franklin	Watershed: Charles	
Universal Transverse Mercator Coordinates:	Latitude: 42d 07' 57" Longitude: 71d 22' 40"	
Estimated commencement date: Spring 2010	Estimated completion date: Fall 2010	
Approximate cost: \$750,000	Status of project design: 25 %complete	
Proponent: Town of Franklin		
Street: 257 Fisher Street		
Municipality: Franklin	State: MA	Zip Code: 02038
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Mr. Robert Cantoreggi, Director		
Firm/Agency: Dept. of Public Works	Street: 257 Fisher Street	
Municipality: Franklin	State: MA	Zip Code: 02038
Phone: 508-520-4910	Fax: 508-520-4939	E-mail:rcantoreggi@franklin.ma.us

- Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?  
 Yes  No
- Has this project been filed with MEPA before?  
*See Attachment A for DEP correspondence*  Yes (EOEA No. 11405)  No
- Has any project on this site been filed with MEPA before?  
 Yes (EOEA No. 11405)  No
- Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:
- a Single EIR? (see 301 CMR 11.06(8))  Yes  No
  - a Special Review Procedure? (see 301CMR 11.09)  Yes  No
  - a Waiver of mandatory EIR? (see 301 CMR 11.11)  Yes  No
  - a Phase I Waiver? (see 301 CMR 11.11)  Yes  No

Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres): None

Are you requesting coordinated review with any other federal, state, regional, or local agency?  
 Yes (Specify \_\_\_\_\_)  No

List Local or Federal Permits and Approvals: Water Management Act (WMA) Permit, New Source Approval, and Order of Conditions. Permits were originally filed for the proposed well in 1998. We will seek to reopen the file at the time the ENF is filed.

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- |   |                                       |  |
|---|---------------------------------------|--|
| <input type="checkbox"/> Land             | <input type="checkbox"/> Rare Species | <input type="checkbox"/> Wetlands, Waterways, & Tidelands      |
| <input checked="" type="checkbox"/> Water | <input type="checkbox"/> Wastewater   | <input type="checkbox"/> Transportation                        |
| <input type="checkbox"/> Energy           | <input type="checkbox"/> Air          | <input type="checkbox"/> Solid & Hazardous Waste               |
| <input type="checkbox"/> ACEC             | <input type="checkbox"/> Regulations  | <input type="checkbox"/> Historical & Archaeological Resources |

Summary of Project Size & Environmental Impacts	Existing	Change	Total	State Permits & Approvals
<b>LAND</b>				<input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input type="checkbox"/> Chapter 91 License <input type="checkbox"/> 401 Water Quality Certification <input type="checkbox"/> MHD or MDC Access Permit <input checked="" type="checkbox"/> Water Management Act Permit <input checked="" type="checkbox"/> New Source Approval <input type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i>
Total site acreage	3.4 acres			
New acres of land altered		400 s.f.		
Acres of impervious area	0	<0.01 acres	<0.01 acres	
Square feet of new bordering vegetated wetlands alteration		0		
Square feet of new other wetland alteration		0		
Acres of new non-water dependent use of tidelands or waterways		0		
<b>STRUCTURES</b>				
Gross square footage	0	400 s.f.	400 s.f.	
Number of housing units	0	0	0	
Maximum height (in feet)	0	20 feet	20 feet	
<b>TRANSPORTATION</b>				
Vehicle trips per day	Unknown	1	1 additional	
Parking spaces	0	1	1	
<b>WATER/WASTEWATER</b>				
Gallons/day (GPD) of water use				
GPD water withdrawal	0	864,000	864,000	
GPD wastewater generation/ treatment	0	0	0	
Length of water/sewer mains (in miles)	1 (See note)	0	1	

Note: A water main approximately 1 mile in length was previously installed between Proposed Well 12 and Existing Well 8.

**CONSERVATION LAND:** Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

- Yes (Specify \_\_\_\_\_)  No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

- Yes (Specify \_\_\_\_\_)  No

**RARE SPECIES:** Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

Yes (Specify \_\_\_\_\_ )     No (See NHESP locus plan)

**HISTORICAL /ARCHAEOLOGICAL RESOURCES:** Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

Yes (Specify \_\_\_\_\_ )     No (See Attachment A)

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

Yes (Specify \_\_\_\_\_ )     No

**AREAS OF CRITICAL ENVIRONMENTAL CONCERN:** Is the project in or adjacent to an Area of Critical Environmental Concern?

Yes (Specify \_\_\_\_\_ )     No

**PROJECT DESCRIPTION:** The project description should include (a) a description of the project site, (b) a description of both on-site and off-site alternatives and the impacts associated with each alternative, and (c) potential on-site and off-site mitigation measures for each alternative (You may attach one additional page, if necessary.)

The Town of Franklin proposes to install a new Well (No. 12) at TW #1-86 on Populatic Street in Franklin. The well was originally identified as a potentially viable public water supply source during a test well program initiated by the Town in 1986. In November/December 1993, a request for site exam and a pump test proposal were submitted to the Department of Environmental Protection (DEP) per the New Source Approval process requirements. Upon DEP approval, a pumping well was installed with an extended pump test conducted in October 1994. Based on the results of the pumping test, an approved capacity of 600 gpm was proposed. D.L. Maher reported the results of the pump test in an Extended Pump Test Report dated May 1996. In November 1997, the Town filed an Environmental Notification Form (ENF), and applications for Approval to Construct a New Source and a Water Withdrawal permit. Subsequent to filing these permits, the Town decided to forego development of Well No. 12 and focus on permitting and constructing proposed Well No. 11. However, the final permits for Well No. 11 included severe limits on its withdrawal, as the withdrawal influenced stream flows in Miscoe Brook and would require the well to be shut down approximately 75% of the time. As a result, the Town has recommitted to the development of proposed Well No. 12. In this regard, the Town met with representatives from the DEP in Spring 2003 and was advised to file a new ENF for the well, incorporating responses to previous questions posed by the DEP and other interested parties regarding the permits filed in 1997.

#### Project Site

The proposed Well No. 12 would be located on a 3.4 acre Town-owned parcel off Populatic Street in the northeastern portion of Franklin, adjacent to the Charles River and approximately 200 feet south of the Medway town boundary (see Figure No. 1). The site is currently undeveloped and consists of small patches of trees and bordering vegetated wetland areas. The proposed well is located approximately 200 feet off the Charles River and within the buffer zone to bordering vegetated wetland areas (see Figure No. 2). The 400-foot Zone I radius for the proposed well extends onto adjacent Town-owned properties.

#### Alternatives and Mitigation Measures

In October 2001, the Town contracted for the completion of a Water System Capital Improvement Plan. The report consisted of a review of the Town's water distribution system, determined current and projected water demands, and provided a water supply evaluation along with a prioritized list of improvements. In general, the study found that the Town does not have sufficient water resources to meet their projected demands and has difficulty meeting their existing maximum day demands. Acting on these findings, the Town committed to using a portfolio approach to address the water supply needs of the community. This approach identifies four alternatives to be pursued simultaneously: water conservation, new source development, contaminant correction and regional water supplies. The overall goal is to develop sufficient supply within the Town's boundary to provide source redundancy, water emergency provisions and the capability to meet summer average day demands with the largest source out of service. In addition, it is imperative that the Town have sufficient water resources to allow management flexibility so as to not overly stress the region's aquifers, to rest water sources and pumping works as necessary, and to minimize environmental impacts where they exist. The four alternatives are discussed in more detail below:

1. Water Conservation - The Town has been proactive with water conservation as described in detail in Narratives A, B and C. Water conservation measures implemented by the Town include annual lawn watering restrictions, a leak detection program, a water main replacement program, water rate pricing adjustments and public outreach and education. The lawn watering restrictions that the Town implements each year are used as a model in the Commonwealth of Massachusetts. The restrictions are imposed in order to reduce the frequency of lawn watering by the Town's residents and maintain summer withdrawals at the lowest possible levels. The Town generally reduces lawn watering to one day per week throughout the summer. The Town also understands the importance of leak detection and as such performs leak detection surveys on a biannual basis in accordance with DEP guidelines. Another program that has assisted the Town in reducing the volume of unaccounted-for water is their water main replacement program, which focuses on areas in the system with older mains and AC mains, which have a greater tendency to break. Since 2000, the Town has replaced over 16 miles of water main. The Town's residential per capita water use and unaccounted-for water statistics demonstrate the success of these initiatives. Although the Town recognizes the importance of the various conservation programs discussed above, it should be noted that none of these measures are likely to reduce the Town's demand for water. While the conservation measures may reduce the Town's per capita consumption and maximum observed demand, the Town continues to grow in population, therefore it is important for the Town to be prepared to meet the water demands that accompany growth. In the past, the Town has had difficulty maintaining water supplies to meet demands despite Growth Management Planning efforts. Therefore, the implementation of Well 12 is seen as a necessary and proactive measure.
2. New Source Development - Test well exploratory programs and evaluations have been conducted throughout Town since the 1980's. With the exception of those wells already developed by the Town and/or previously proposed (Wells No. 11 and 12), no other sites within the Town were identified as having sufficient capacity for development as a public water supply. In October 1998, the Town completed a fracture trace analysis report entitled "Fracture Trace Study toward the Delineation of a Potential High-Yield Bedrock Well Site" at 16 sites within the Town. Based on the results, four of the 16 sites evaluated were identified as priority sites. Unfortunately, drilling completed at one site (off Washington Street) was unsuccessful and permission to install test wells has not been granted by the property owners of the other sites. Although bedrock wells may be a viable alternative, many unknowns remain. Specifically, bedrock wells generally have a lower yield than surficial wells and it is unknown where the water recharging the well originates, which can result in adverse water quality issues. In addition, because of the nature of the deposits in which the well is drilled, arsenic and radionuclide contaminants are likely, requiring costly treatment. In conclusion, the most viable option to supplement the Town's water supply under this alternative is the development of proposed Well No. 12. In contrast to the bedrock wells, proposed Well No. 12 is located within a gravel, high-yield aquifer and based on pump testing has the capability to yield 600 gpm.
3. Contamination Correction - One of the Town's priorities in addressing their water supply needs has been to maximize the yield from the existing water sources to the extent possible. In this regard, a \$4.5 million water treatment facility for the removal of iron and manganese from the groundwater supply at Wells No. 1 and 2 was constructed. The project was financed under the Drinking Water State Revolving Fund (SRF) program and allows the Town to utilize the wells at their full capacity of 825 gpm, versus the 330 gpm at which they were previously utilized during the summer months only. The Town has also installed replacement wells at Well No. 6 and is proceeding with the installation of replacement wells at existing well sites (No. 3 and 8) to regain lost capacity as a result of iron fouling. Finally, the Town conducted a corrosion control study in order to optimize the dose of sodium hexametaphosphate utilized at each existing well site for sequestering. While the Town is committed to maximizing the yield from the existing sources, even with these improvements, additional water sources will be required to meet future water demands, to provide system redundancy and allow the Town to effectively manage the use of all of their wells.
4. Regional Water Supplies - The Town believes that water purchase agreements with neighboring communities are valuable in providing additional supply via a regional approach, particularly for emergency purposes. In this regard, the Town participated, both financially and staff resources, in the USGS study and modeling to optimize withdrawals and discharges within the region. The Town also believes, however, that while regional agreements are a way to supplement water supply during peak seasonal demand periods and emergency situations, water purchase agreements may not prove to be a permanent solution to meet future water supply needs. For example, a supplying community may encounter contamination at one of its sources that may require limiting the supply of water to its neighbor in order to meet its own public health and safety needs. Regardless, the Town continues to pursue possible interconnections with their neighboring communities as outlined in Narrative C.



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Franklin, Massachusetts  
1" = 1,000'

1

Figure No.

USGS Locus  
Well #12



